

O-Engineers

5th issue, Dec 2017

Learning and Guiding

iQuit.



(editorial)

Let's Talk

It is an honor for me to share views of different engineers in front of our readers, this platform is growing day by day and we are receiving multiple suggestions for improvement daily, most of our engineers are interested in contributing about their own stories in every edition but we do not want to limit this platform(magazine) for biographical purposes, that is why at editing session we select the suitable stories among the best available received stories. we also will include the tutorial section from January 2018, we will include the tutorials of ETAP, Digsilent, PSCAD and other Power software' tutorials. hope this will help us and we will learn the new technology with the help of our own resources. Thank you all for being with us in this journey of learning



Engr. Qazi Arsalan Hamid



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Feedback

Nice work, please assign one separate section for career development. (Engr. Suhail Ahmed)

Good Work, i will contribute some topics from my field. (Engr. Imran Shamim)

adorable efforts, keep moving (Engr. Ashok Bhatta)

Please Improve graphical work. (Engr. Saleemullah)

Add Technical news section. (Engr. Habib Al balushi)

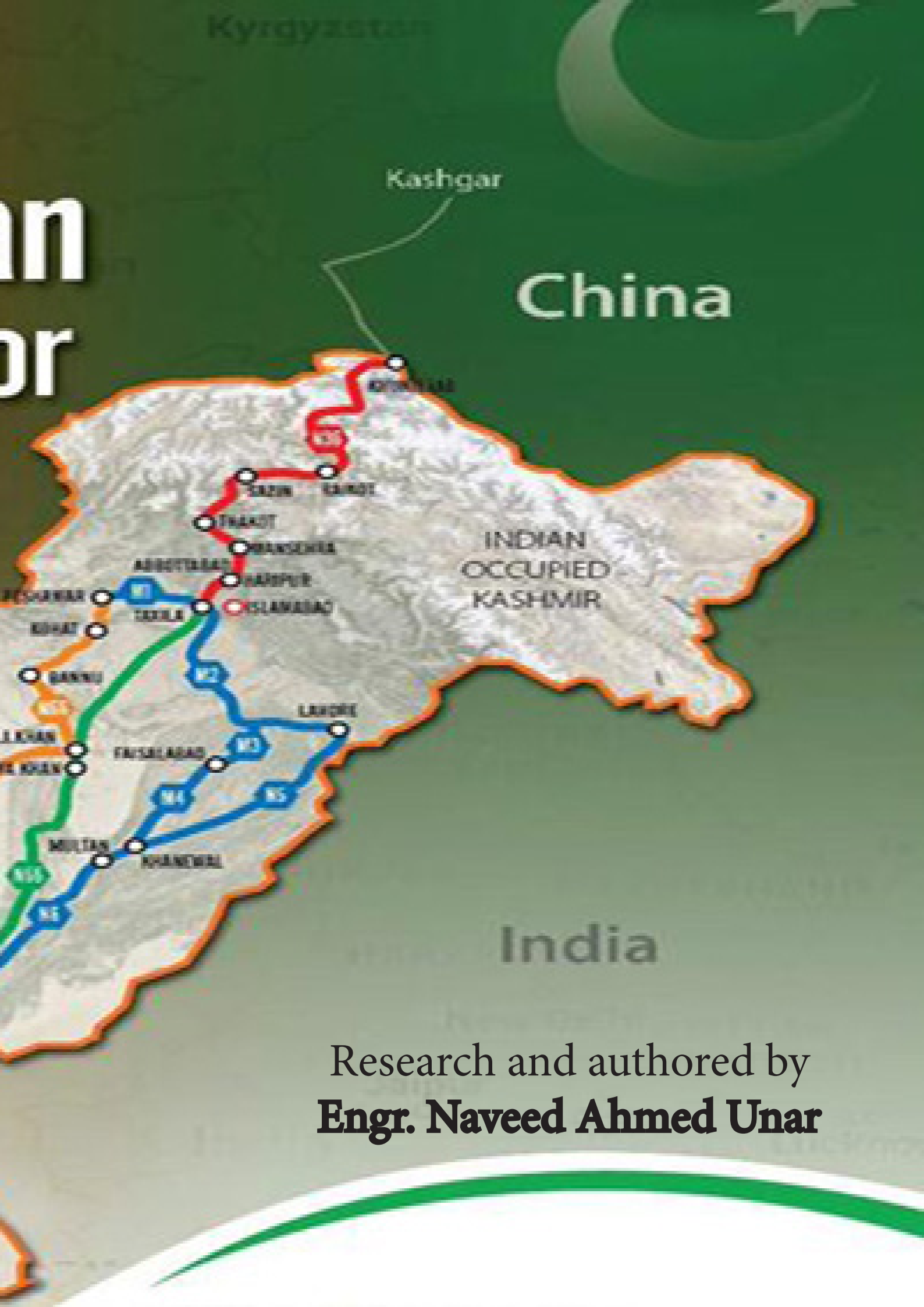
China-Pakistan Economic Corridor

Paving way for
socio-economic development
for all provinces of Pakistan

Afghanistan



an
or



Research and authored by
Engr. Naveed Ahmed Unar

On April 21, 2015, Pakistan became an important signatory to China's One Belt One Road Initiative as it signed a historic agreement with China on China Pakistan Economic Corridor (CPEC) plan worth 46 billion US dollars. The plan has now exceeded 62.5 billion US dollars and is intended to extend further. According to this agreement, China will provide 37 billion US dollars in investment for electrical power generation projects up to 16400 MW. Loans based on concession up to 10 billion US dollars will be invested on infrastructure development. Chinese government and banks – China Development Bank and the Industrial and Commercial Bank of China Ltd. will lend to Chinese companies, which will invest in projects as commercial enterprises. The CPEC spending exceeds that of the USAID, which has given 31

billion US dollars to Pakistan since 2002.

The CPEC ensures cooperation in civil nuclear energy, space and maritime technology, counter-terrorism and defense.

The China Pakistan Economic Corridor is a mesh connecting Gwadar port in the southwestern region in Pakistan to China's northwestern autonomous region of Xinjiang. A network of railways and pipelines to execute power generation and infrastructure projects by means of an economic pathway on the Arabian Sea.

The corridor would transform Pakistan into a center of economic empowerment and regional connectivity and provide China with a shorter and cheaper route for trade with Asia, the Middle East, Europe and Africa.

The investment aims at strengthening Pakistan's ailing economy and is designed on the parameters of Pakistan Vision 2025 which is devised by Planning Commission of Pakistan and approved unanimously with the support of the Executive Committee on National Economic Council (ECNEC).

While on Chinese part, the plan is a flagship program of China's One Belt One Road Forum that includes Silk Road Economic Belt and 21st

projects will give China direct access to the Indian Ocean

Century Maritime Silk Road. China's aim is to forge silk road land and sea routes to markets in the Middle East and Europe. The projects will give China direct access to the Indian Ocean where it will touch Sir Creek's controversial boundary line. This tendency of infiltration has caused consternation in the board rooms of unseen FOEs establishment. CPEC project is brainchild of China and was launched by Chinese President XI Jinping during his visit to Pakistan in April 2015. Around fifty-one agreements were signed out of which thirty-one were linked to this corridor. In the recently held Belt and Road Forum in China, where the Prime Minister and the Chief Ministers from Pakistan gathered in Beijing, six new agreements were embedded as part of the China Pakistan Economic Corridor including Gwadar Airport, East Bay Expressway and Havelian Dry Port in Pakistan.



President Mamnoon Hussain of
Pakistan with his Chinese Coun-
terpart





CPEC 6th JCC Meeting on 29th Dec



December, 2016 at Beijing, China.



6th JCC Meeting on 29th Dec



ember, 2016 at Beijing, China



CPEC - 6th Joint Cooperation Committee (JCC) Meeting



ing(29TH DECEMBER, 2016 – BEIJING)

The China Pakistan Economic Corridor connects Gwadar port in Southwestern Pakistan to China's northwestern autonomous region of Xinjiang consisting of 300 km from Gwadar to Kashgar. According to Firstpost report,

“This is the biggest overseas investment by China announced yet and the corridor is expected to be operational within three years and will be a strategic gamechanger in the region. The project also aims to improve intelligence sharing between the countries”.

As per The Guardian report,

“The Chinese are not just offering to build much-needed infrastructure but also make Pakistan a key partner in its grand economic and strategic ambitions. The project provides China direct access to the resource rich Middle East region via Arabian Sea, bypassing longer logistical routes currently through the Strait of Malacca”.

According to Bloomberg,

“Energy security is a key concern for China, as it is the world's biggest oil importer, and oil pipelines through Pakistan would cut out ocean travel through Southeast Asia”.

As stated by Chinese Foreign Ministry Spokesperson – Hua Chunying,

“The corridor will survive as a driver for connectivity between South Asia and East Asia”.

***Major projects under the corridor umbrella
are enlisted as follows:***

S. No.	Major Projects
1	Gwadar Port
2	Upgrading of Karachi-Peshawar Main Line
3	Khunjerab Railway
4	Karachi-Lahore Motorway
5	Havelian to Khunjerab Rail Track
6	Hazara Motorway (Also known as E35 expressway)
7	Iran-Pakistan Gas Pipeline
8	Economic Corridor Support Force
9	Havelian Dry Port
10	Orange Line
11	Upgrading of Gwadar International Airport
12	700 Hydro-Electric Suki Kinari Hydropower Project
13	Port Qasim 2*660 MW Coal-fired Power Plant
14	720 Karot Hydropower Project
15	Jhampir Wind Power Projects
16	Thar Block II 2*330 Coal-fired Power Project
17	Development of Private Hydro Power Projects
18	Dawood Wind Power Project
19	Cross Border fiber optic data communication system project, a digital terrestrial multimedia broadcast pilot project
20	Neelum Jhelum Hydro-power Project

China aims at constructing oil storage and refinery at Gwadar port so that the oil gets transported to its Xinjiang Uighur Autonomous region through a network of roads and pipelines. This will indeed pave the path to ensure goods movement to inside China without opting for Strait of Malacca. According to certain speculations and thoughtful reckoning, the US or India might try to block the Strait of Malacca and instigate break-out in the region. Iran has also shown keen interest over CPEC portfolio to attach the Iran Pakistan Gas Pipeline project with China presenting it as





MASTER CITY PLAN IN BEIJING ON MAY 14, 2017

a general interest between the three countries.

Having said that, China has expressed concern that some separatist groups in Xinjiang may be collaborating with insurgents in Pakistan, and has expressed a desire to strengthen security ties. The outlawed Tehrik-e-Taliban, Jamat Ul Ahrar and Lashkar-e-Jhangvi in association with the Islamic State militant group in Afghanistan have claimed responsibility for attacks on some Chinese nationals including workers and tourists in Quetta and Mazung in Balochistan. The Express Tribune reports that Pakistan has deployed 12000 security personnel to protect Chinese workers in the corridor. Currently more than 12000 security officials are deployed for the protection of over 9000 Chinese workers in Pakistan.

Munir Akram, former Pakistan Ambassador to the UN writes in his semi-monthly column in Dawn Newspaper,

“Cross boarder FOEs are patronizing terrorist groups to attack soft targets in Pakistan particularly, Balochistan. Pakistan must take diplomatic moves to exert pressure on India to investigate links between TTP and the militant Islamic State group, and the relationship between TTP and intelligence agencies of India and Afghanistan. China’s emergence as a global economic and military power offers a historic opportunity for Pakistan. It must be grasped with both hands. The CPEC project is critical, economically and strategically for Pakistan. If pursued with vision, the opportunity can encompass investment in all sectors of Pakistan’s economy, rapid modernization of Pakistan’s defense capabilities, stabilization of Afghanistan, and creation of an economic network under the One Belt One Road initiative integrating Pakistan with Iran

Iran, the GCC, Central Asia and Russia”.

Militant separatist regimes are being engineered in Balochistan that are the Balochistan Liberation Army and Jun-dullah, that have carried out bombings. These banned outfits have carried out the bombings and are evidently mentored by India. Another important aspect of CPEC is that it passes through the Azad Kashmir, one of the areas that has been under sheer conflict between India and Pakistan. Munir Akram writes,

“Cross Boarder FOE is maintaining regular shelling along the LoC in disputed area . Pakistan must keep its nerve and should take account of India’s comprehensive strategy by portraying it as a terrorism sponsor while it sponsors TTP and separatism in Balochistan”.

In the first week of June, elite IS leadership was gunned down in Mastung in an intelligence led operation as quoted by Weekly Dawn. The operation was designed as a reaction to an in-detail report regarding abduction of two Chinese language instructors from Quetta on May 24. A week ago in the same month, twenty-eight people were martyred when a suicide bomber exploded himself on the convoy of Senate Deputy Chairman – Maulana Abdul Ghafoor Haidri in Mastung. It could well have the premier intelligence led operation against a terrorist outfit since 2015.

Wu Zhaoli, Assistant Research Fellow at the National Institute of International Strategy, Chinese Academy of Social Sciences, in his article published in global times, argued that security concerns are a critical cause which helps to determine the path of this corridor.

Another debate that has risen over the period of time is

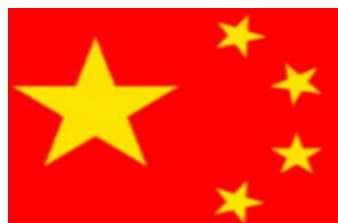


whether CPEC projects are loans or Foreign Direct Investment. We have been economist commentators referencing CPEC to the East India Company. On the other side, we hear meaningless repetitive remarks showing gratitude towards the initiatives. This is almost obfuscating whether it needs foreign direct investment or not.

In this regard, Moazzam Hussain – author of the book, “Putting Pakistan Right: Standpoints on the War on Terror, Energy, Transit Corridors and Economic Development” writes a column in Dawn Newspaper titled as, “Chinese investment” where he concludes that overwhelmingly the CPEC funds fell within the definition of FDI”. He further states in the same article,

“As a developing country, Pakistan is going to need tens of billions of dollars of investment to build power generation and transmission capacity”.

In summary, it can be concluded that although Pakistan had probably a rather feasibly impossible alternate in terms of “Build Operate and Transfer (BOT)”, therefore, it opted for an easily accessible, practically motivated and strategically viable option in the form of Foreign Direct Investment (FDI). Pakistan simply cannot afford to standstill nor can it prosper without an inrush of investment paraphernalia if it aims at securing its place amongst the top twenty-five economies and emerge as an economic leader in the world market by the end of 2025. This is indeed a roadmap towards historic inclusion in the Group of 20 (G20) in 2030.





Commonwala

Engr. Qazi Arsalan Hamid

Farman is a nice guy, he studied electronics at Mehran University, he asked me via email about our “Entrepreneur” program, I invited Farman to meet me during my visit to Pakistan, when I met with him I found him causal and introvert, we discussed his plans for startup, and with his permission I want to put his story in front of you, Farman told “Arsalan, I am not a job guy, I want to do something different, I want to develop my own business app and website from which I can trade something which is “Need” not “luxury”, I investigate what is the requirement of common people, housewives, on the job peoples, teachers etc. today, I talked my family and my relatives, then I started assembling the business idea, I thought most of the business will be expected from housewives, as they are totally occupied with the home business but they also have a need of clothes, eligible tutors, better schools for their children, pick and drop for their children, etc. so I started working on it I

I can trade something which is “Need” not “luxury”

surveyed different shopping malls and talked to different shopkeepers about their designs and available cloth materials, most of them not interested but few of them give me complete details as they are interested to increase their sells, then I talked different lady tailors, few of them are ready to give me rates as again they are ready to expand their business, also I talked to different family relatives, they also show their interest to work for me at very low rates, most of my friend’s sisters and mothers ready to work for me at very low rates, and

when I match the rates of tailors with them, it is about 40 to 60% less with quite good expertise.

Right now, sir, we are in process of application and web development, from where you can select designs and style of your clothes, then we will contact customers, and after taking complete dimensions from them (if they are ok to define on phone it is good, else we will visit them with lady sales representative)assure them within three days we will deliver the order if it is under 3000 PKR, more than 3000 PKR order we will ask for a week, we will do the complete buying after taking 50% advance , and rest will be paid on delivery), for tutors we will show about 40 profiles with complete details on our websites, who would be available after complete talks with parents and our administration.

Farman stopped his talk here and tell me, we want to introduce many new things which will be need of the time but not luxury, I forwarded his complete business written plan to our Carpediem society of learners, and now waiting for approvals, I wish Farman good luck as he is doing something different, he is working on “needs”, we will support them because he and his website and application “commonwala” will generate job in Pakistan.





BG Entrepreneur

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12 guidelines for Chinese EPC

Engr. Irfan Akhter



or successfully engaging a



(Source: AWP)

1. Develop a management framework at the initial outset of the project to ensure key strategic issues are addressed through all phases of the project.

Projects involving Chinese EPC contractors must establish a framework at the project kick-off to make sure all key strategic issues are highlighted and that they can be addressed as part of the Project Execution Plan. In particular, the framework will capture opportunities and risks, and will provide sufficient time to adopt and develop a strategy based on the specific circumstances of the project, and must be in place prior to award of the EPC contract.

Important issues include:

- *. Providing information on the governmental commitments and stakeholder engagements that have to be met as part of the project execution
- *. Regulatory and organisational structure
- *. Appropriateness of front—end engineering and contract modelling (strong consideration of key performance indicators is critical)
- *. Environmental and social impact and sustainability management
- *. Health and safety
- *. Local content
- *. Schedule development, reporting and progress measurem-

-ent requirements, preferred vendor and subcontractor lists, standards and specifications against which work must be delivered.

- *. Cash-flow and money management protocols
- *. The need for early preparatory work
- *. Compulsory requirements regarding design criteria and specifications
- *. The need for an independent review engineer

2. Chinese EPC contractors, and a project's surrounding community, can significantly benefit from strong health and safety policies and procedures. EPC contractors must embed a greater health and safety focus in their organisational culture, at least in the context of the project.

Any project must have outstanding safety performance and an incident-free record to be a success. All injuries, illnesses, accidents and environmental incidents are preventable. Comprehensive systems for managing health, safety and environment (HSE) and security need to be established and implemented on the project to achieve this goal.

A health, safety and environment (HSE) plan needs to be developed for the environment and risk profile of each specific project. Particular attention should be given to the following areas, where Chinese EPC contractors benefit most from advice and support:

- *. Making health, safety and environmental protection a personal value that guides behaviour, actions and decisions

- *. Meeting legal and moral obligations to keep people safe and protect the environment and community
- *. Managing risk during construction, commissioning and operations
- *. Selecting, training and assessing competency of managers, supervisors, HSE personnel and all other personnel
- *. Facilitating consultation, including internal HSE communications, field HSE meetings and toolbox sessions
- *. Managing documents and records
- *. Field execution, including of site-specific HSE management plans, travel arrangements, fitness for work and commissioning strategies
- *. Change management
- *. Preparing for and responding to crises and emergencies
- *. Analysing incidents and behaviour, including in the areas of medical services, occupational health and hygiene, and rehabilitation

3. Conducting design reviews and production-line quality inspections in China before delivery can significantly improve an asset's whole-of-life effectiveness.

A procurement quality support hub based in China can provide Pakistani customers with excellent solutions that deliver gains in the areas of cost, schedule and quality. Management oversight should cover the entire supply chain, beginning with strategic advice on which materials to source from China and proceeding to procurement, inspection, expediting, warehousing, export shipment and related logistics.

The increased concerns associated with Chinese procurement are typically more than offset by significant capital-cost savings. Experience has shown that it is prudent to reinvest some of those savings into managing and mitigating the risks, capturing further benefit for the project.

It is extremely beneficial to develop a strategy for managing the risks involved in procurement, based on a rigorous and structured process. This ensures that focus is maintained on capturing and recording information needed to resolve issues related to schedule, quality and cost.

Each procurement event is unique, and while general principles may be applied, it is essential to identify, quantify and manage the particular risks associated with individual procurements. It is important to consider the possibility of co-locating engineers in contractor offices to assist with on-the-job design reviews, procurement and manufacturing processes approvals, and quality interventions.

4. The establishment of front-end engineering and contract modelling is critical to ensure that key project details are fully established before the contract is awarded.

Determining the correct contract modelling and definition, and the preparation of contract documentation for the EPC engagement, can be crucial to a project's success. Failure to formulate the contract correctly can cause misalignment of the asset's construction design, execution and operational needs, which are all critical.

Advisory activities that support formulation of the contract can include the following:

Assessment of the contracting and contract-engagement model

Establishment of quality and performance requirements

Establishment of the strategy for project delivery and an associated, detailed schedule

Establishment of requirements to be met in supporting construction activities in areas such as safety, mobilisation, camp requirements and standards, social interfaces, regulatory compliance, reporting, quality, warranties and contract compliance management

Procurement establishment and appointments

Whole-of-life cost planning and analysis, integrated with design

Establishment of stakeholder relationships

5. Chinese EPC contractors benefit from support in developing a project-execution plan and working in accordance with its requirements.

A Project Execution Plan (PEP) and associated project plans (quality; health, safety and environment, etc.) should be developed for the execution component of the project, based on proven methods and techniques.

Such a plan should detail responsibilities and implementation strategies for all tasks that need to be performed to deliver the project. It becomes a valuable tool to assist in

project execution that is completed and delivered according to the baseline schedule and within the budget.

Chinese EPC contractors may not be familiar with this way of working to a defined PEP, so such a plan must be requested in the engagement contract and then the contractor will need to be supported in working to it.

6. Establishing a sound approach to project logistics is critical to the project's success.

The logistics capabilities of Chinese firms are generally exceptional, as their country has been refining the export of goods for decades. Nevertheless, when working with Chinese EPC contractors, a considered approach to establishing logistics and office services, such as communications based on the work methodology and actual conditions on the ground in Pakistan, becomes another critical success factor.

The establishment of a sound approach to logistics and work methodology is important to successfully working in remote locations and managing large numbers of deliveries. The infrastructure to be provided on-site, and how best to arrange it, must be planned to support the proposed methodology for the project.

7. The capabilities of Chinese EPC contractors need to be supplemented with environmental-management capabilities and an appreciation of requirements.

Chinese EPC contractors need significant support in the management of environmental risks to ensure sustainable development and good stakeholder relations. Effective environmental management reflects responsible business practices that meet the expectations of the global marketplace, and environmental programs must be designed in a way that ensures integration of environmental goals and due diligence with a company's overall management system. This improves environmental performance and helps manage risk.

Project teams have to establish life-cycle environmental solutions in areas including conducting environmental feasibility and baseline studies, negotiating environmental authorization processes, and mitigation and management planning. It is particularly important to seek support with environmental-compliance monitoring in line with local and regional legal frameworks, as well as with International Finance Corporation (IFC) and World Bank requirements.

The integration of environmental considerations with engineering solutions reduces the impacts of projects from the planning stage, optimising environmental and economic performance, and reducing project risks and liabilities. With assistance in the adoption of appropriate project-delivery capability, support systems, and processes, project owners employing Chinese EPC contractors can achieve timely delivery of a technically complex program of environmental, social and health impact assessment (ESHIA) studies.

8. The management style of the client must be adapted to match the diverse cultures involved in the project.

The right leadership style is vital in working with Chinese EPC contractors. To build confidence and trust with the client and the EPC simultaneously, management must be professional, fair and proactive, and provide timely resolutions to issues. Therefore, an understanding of China's culture, hierarchical organization structures and approaches to problem-solving are essential. The management team should provide guidance, mentoring and structured oversight that helps build the relationship between the owner and the EPC contractor and supports the project objectives.

9. Because Chinese EPC contractors often prefer to introduce Chinese design and construction standards, they may need support in adopting and following standards proven, used, and even required in regions such as South Asia, the United States, Australia and Europe. Use of these internationally recognized standards can improve project outcomes.

The construction standards adopted for a project can have a significant effect on capital and future maintenance costs. Adopting the wrong standards and construction methods at the outset can significantly increase a project's whole-of-life cost (total cost of ownership).

If Chinese standards are to be used, it is important to assess the possible effects on project delivery outputs and operational costs.

It can be great to a client's advantage to conduct an independent design review to check designs produced by contractors and vendors, as well as to establish an approval process

for materials to be used in the construction of the project. This review must start early in the construction phase to ensure correct standards are incorporated into the contract's technical documentation.

10. Adequate management and supervision of construction are required to ensure smooth, timely completion, as well as quality and compliance to design.

Chinese EPC contractors reach their best performance potential under skillful management and supervision. Contractual obligations should be enforced so the contractor has the greatest possible opportunity to meet or exceed their performance targets.

The inclusion of local content requires an experienced interface between Chinese contractors and local workers to reconcile different expectations in the areas of culture, language, behavior and professional conduct. The EPC contractor and management team have to work together to meet overall project objectives and resolve non-conformances before they evolve into adversarial situations.

It is also important to ensure that Chinese site-management and supervisory personnel are given the proper mandate, in line with their roles and responsibilities, to make decisions on-site.

This prevents delays in waiting for the authority to proceed in a certain manner and allows change to be managed effectively as it arises on-site.

11. Establishing a project steering committee can significantly improve communication between the client and decision-makers in the Chinese EPC contractor's organization.

A steering committee made up of senior management, senior technical advisory staff and the EPC contractor's senior management team provides a level of support that ensures the project and client receive the required corporate attention and have a mechanism for giving feedback. This can help to overcome the issue that in Chinese organizations, lower-level managers are not always empowered to make decisions or may be reluctant to do so, necessitating contact with senior management to resolve issues or expedite progress.

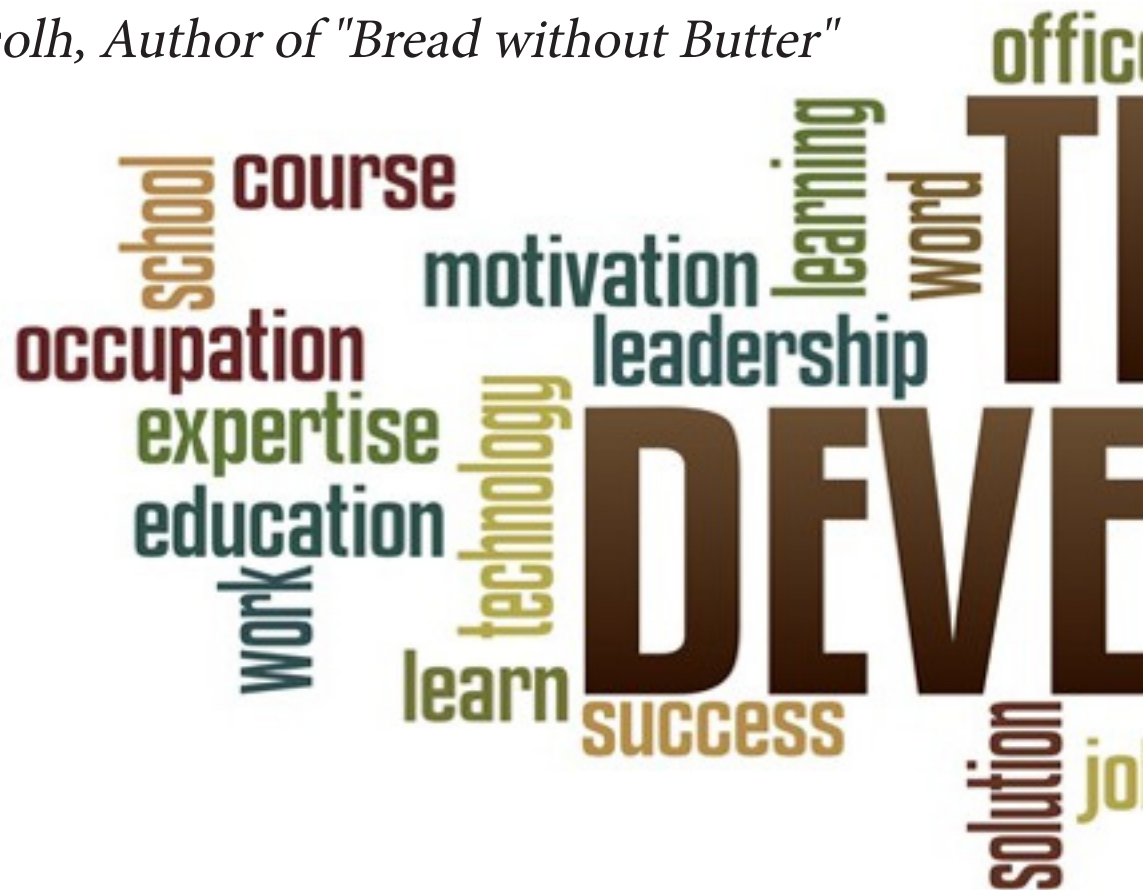
12. To ensure the continued operational success of the asset, a construction closure, commissioning and operational hand-over review should be established, in which outcomes should be compared with the project-execution plan.

Once complete, a project should be handed over to operations in a state of design compliance that is fit for purpose. The works should have reached a level of completion defined in the contract. A comparison of the engineering work with the breakdown structure from the PEP, and with the interface-management planning process, should confirm that all items have been addressed and that the proposed technical packages are complete.



The Misconception of Training & Development in the Construction Industry

Momtaz Alsolh, Author of "Bread without Butter"



skill management knowledge skills study career
TRAINING
DEVELOPMENT
strategy professional direction
text teaching lesson
student business

In this article, I shall try to explain the importance of training and development in the construction industry. I have chosen the construction industry as my experience relates to this industry in particular but what I am about to write about could be applicable to other industries as well.

I must say that I have managed to survive in the construction industry for over 25 years. It was not easy to survive in such an industry especially in the GCC region.

I am one who has always believed in continuous improvement. I was in love with ISO (International Standardization Organization) and spent many hours reading about it. My admiration for the quality management system made me excel in this field that I ended up writing my own policies and procedures for the departments that I was managing. That was a skill that I have inherited over the years. This skill came from my belief that policies and procedures should be strictly adhered to for an organization to remain successful.

ISO dictates that any organization should promote innovation and continuous improvement. ISO also stresses the importance of training and development for all employees and laborers and this for an organization to remain competitive, safe and healthy.

Sadly, after having worked for several organizations (in several regions in the GCC region), I have noticed that the majority of construction companies follow the same ideology when it comes to training and development. This is only true for those that do offer internal or external training, to begin with as many construction companies do not offer any training whatsoever.

The construction companies that do offer internal or external training and development courses offer them to the top management, the senior managers and the senior staff only. This is particularly valid for office staff. They forget that it is by empowering the lower echelon of the organization chart that a company shall grow and excel. This is where the misconception comes from concerning the construction industry. It is important to believe that each and every employee is an asset to any organization. All form one pyramid and if one shakes then all could shake and the pyramid could fall into pieces. During my long career in various construction companies, I have never seen any training or development given to office staff such as Estimation Officers, Purchase Officers, Procurement Officers, IT Staff, Data entry Officers, Secretaries, Accounts Officers, Administration Officers, HR Officers, Document Controllers, Office Boys (trade should be changed to Hospitality Officers), Cleaners (trade should be changed to Hygiene Officers), Security Officers and so on. In many instances, I felt obliged to offer training & development courses myself to some of the staff that worked directly under my supervision but never did the top management notice such courses or never did anyone show gratitude for my efforts. I admit that at the construction sites, internal training courses are given on health and safety to construction staff (foreman, chargehand, acting charge hand etc.) and laborers but these internal courses are usually given in one or two languages only and the majority never understand what the courses are about due to not understanding the spoken language (it is to be

noted here that some of the laborers don't know how to read or write). Internal courses at the construction sites should be conducted by arranging translators to translate in the most common languages available. It is the right of each and every laborer to understand the health and safety instructions that are given as in the absence of understanding such instructions this could be detrimental to the laborer's health and safety and could be the direct cause of incidents at site. This matter should be considered in risk management.

I must also admit that other staff at site are never given any internal or external training. Such staff include but are not limited to: Project Managers, Construction Managers, Site Engineers, Quantity Surveyors, Cost Controllers, QA/QC Officers, Draftsmen, Architects, Site Administration Staff, Logistics Staff, Storekeepers (including store Staff), Warehouse Officers or Controllers, Timekeepers, Camp Bosses, Camp Staff, Security Staff etc.

The funny part is that internal and external Auditors never point out that lack of training or inappropriate training is a major risk. I believe that everyone in the organization chart of any company and this no matter for what industry it belongs to should have an equal chance to internal and external training & development.

Some might ask: who deserves such training & development more?

The answer is: all site staff and all site laborers should be offered internal training on health & safety with no exceptions. For external training & development courses, such courses could be offered to those that have the highest marks in the

employee performance review forms (in their appraisals) and this no matter the category or trade. This is the main reason why everyone in the organization chart (from top to bottom) should be fairly and justly appraised.

I believe that time has come to reinforce the right of training and development of all staff and laborers of all categories in the construction industry. Such training courses should be conducted in a modernized manner taking into consideration the latest developments in the construction industry and for this reason any internal training course should be well prepared in a professional manner using the correct technology to deliver the course and this in the correct language of the attendees.

It is to be noted that any reputable company that operates in the construction industry should have a yearly budget (an allocated sum of money) for external training & development requirements.

For internal training, I believe that every construction company already has the required talent that could conduct effective training and development courses. It is not a mistake that a CEO for example gives a particular training course to his / her staff. Other senior staff could follow his / her example and with time this could become best practice. This could also save money on external courses as the in-house talent can in many cases serve the purpose if the courses are designed and prepared professionally and correctly.

Last but not least, I believe that any Labor Law should stress on the right and importance of training & development especially for those that work at construction projects (on site).

Important hope: I am still praying to almighty Allah (God) to see the light of the fair and just 2016 Labor Law in all GCC countries.

Important reminder:

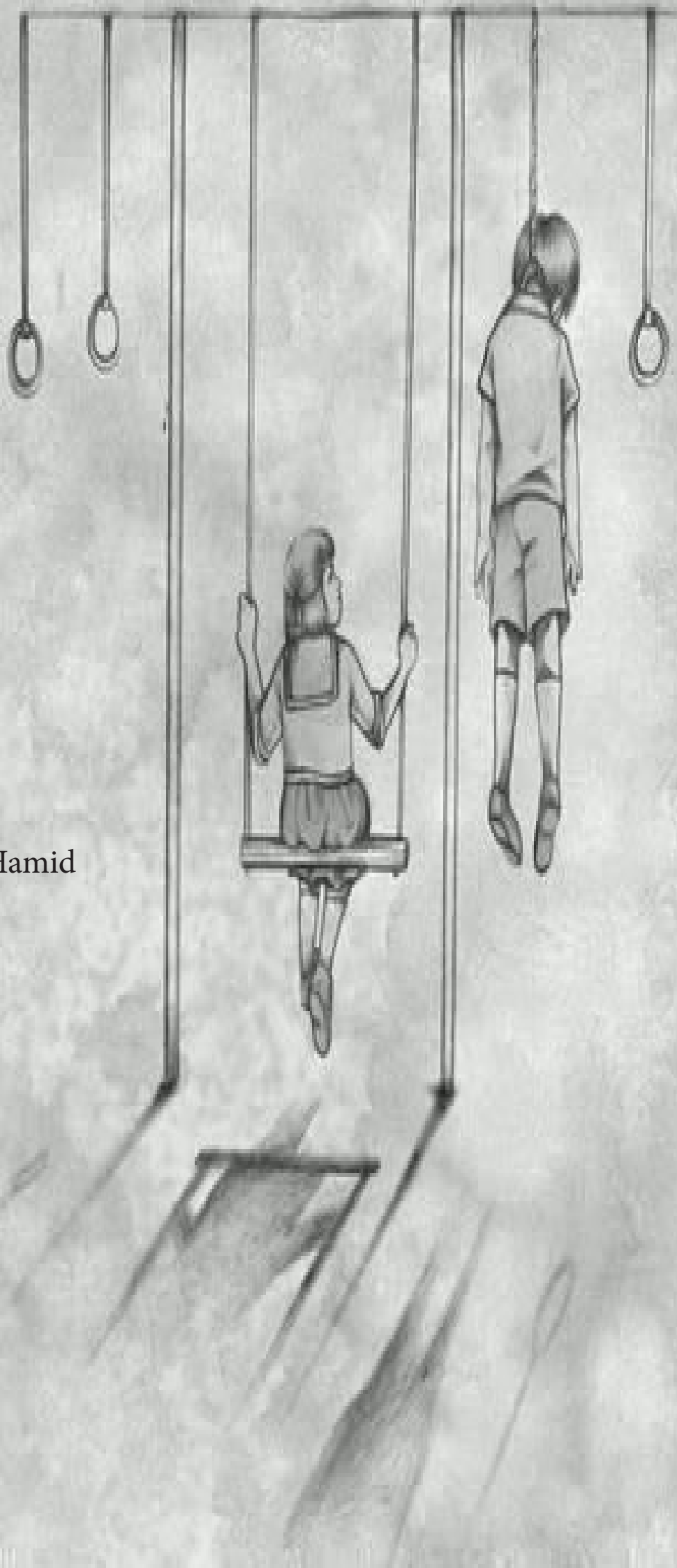
There is a saying that goes like this: “Forgiven is the one that has warned!”

Tatashok, the clock is ticking (Tatashok is a name that I have created to combine the names of two of the largest bus manufacturers in India). I will do what is necessary to ban your cheap buses that come without air-conditioning. The owners of these bus manufacturing companies are inhuman. The day shall come when almighty Allah (God) shall punish you for having allowed the suffering of millions of Laborers (and Farmers) in the GCC region and elsewhere around the world as well. Laborers (and farmers) come from all religions / races. Take a healthy decision! Yes, it can be done. Do not befriend the devil!



I Quit

by Engr. Qazi Arsalan Hamid



Suicide, I think is the easiest option anyone applied on him or herself to get rid of the guiltiness, fear of loss etc. nowadays the biggest issue with the mankind is the joblessness due to technical advancement, robots replaced us in automation industries, manufacturing lines, computer works, etc. right now the biggest victim of the technical advancement is technical workforce. To reduce running costs by cutting jobs, entrepreneurs are ready to invest chunk of money in terms of capital investment by buying robotic manufacturing lines, at the end of day it is all about profit and there is no limit of profit, even you read in previous days One restaurant in Multan employed Robotic waitress(She later accept Islam after complaints and started wearing hijab) instead of regular human waiter, is it affected our society ?

yes offcourse just imagine if we reduce jobs what will happened! Then there will be chaos . for case study just see and read the events of the 1980s in Mumbai India when some corporations closed their operation and fired their employees what happened, that unemployment caused turmoil in India, and Bombay gangs (D-Company etc.) got birth.

We need to understand that why not our governments putting caps on the profit margin of shark type companies and entrepreneurs, why profit of brands like Facebook and LinkedIn is greater than a number of countries annual budgets, job production from these companies are much less than most of the government and private corporations of the world. Most of the companies are not ready to pay taxes to their government you saw that in Panama and paradise leaks, how this greed of profit will end no one knew, but if government put caps on the

profit margin and instruct private companies to maintain Man Power: Robot employer ratio, then there may have balanced the unrest in young and unemployed workforce, else we need to be ready for not religious terrorism but unemployment terrorism.

Suicide or “I Quit” moment is the extreme turn in life of any knowledge worker, as per associated press Engineering is among 5 top profession in which suicide rate is high in America, remember I am talking about AMERICA which is the 1st world and superpower country, in India and Pakistan that may be on top as in our society the issue is that we got job on the basis of

- References (about 80%)
- On your university Good Grades (which is impossible for an average student due to many reasons like domestic issues, the bad body language of the teacher, biases etc.)
- Monopolies (Most of the organization clearly mention that we need engineer from specific universities)
- And many other minor and major points

Our this session is dedicated to engineers like AIZAZ Ali , I was shocked when I heard engineer from the precious university like NUST committed suicide due to joblessness, I have some questions in my mind?

- Whose fault is it?
- Why not in 5th or 6th semester, university includes subjects like career counseling (Pre and Post Graduation)
- Why not final year projects and thesis will get the place in different exhibitions and conferences?
- What is the role of industrial liaison department of NUST?

- Why not anyone points out the ineffective role of engineering bodies like PEC in Pakistan for graduation trainees programs?
- And there are many questions which we need to ask but leave them for a while as questions are lot but answers are limited and sometimes inattentive from authorities

Aizaz committed suicide due to joblessness, although he was graduate engineer, this engineering education is itself full of stress, most of the student committed suicide when they failed to get even admission in universities, it is my advice to parents please reduce the stress level on their children about career development through medical and engineering education, look Tendulkar is not engineer, rahat fateh ali khan is not doctor, junaid jamshed was not a pharmacist nor Muhammad younus or aqeel kareem dedi or abdu-sattar edhi was a rocket engineer, please parent reduce educational stress level of your children.

I just read one BBC report regarding a 17-year student of Kota town of Rajasthan, she was at acute pressure and stress due to college and study centers, remember study center or coaching center is another level of extra education coat which only destroying the creativity of student bright mind. She urged in her suicide letter to government about shutting off these coaching or tension centers. You can measure the stress level from above mention event, now just think about aizaz, he was under stress treatment for 1 year as per sub-inspector Wali Mohammad's investigation. Another turn in the investigation is that one of the aizaz's friend informed that Aizaz's mother is the principle of one leading school of the nation and his

head of the department in HITEC university Taxila, his father told this joblessness made AIZAZ's mentally sick. Aizaz was a mechanical engineer with ambitions but no references, no one was there for his counselling at hard time, what happened is simply explained? Our educational institutes became the industry, and they are producing a lot of engineers and government is not willing to work in job creation sector, then where these energetic fresher will get adjusted they definitely opt for the "I quit" track after losing any help from peers, parents, universities, regulatory authorities etc.

Last but not the least let me tell you we engineers are the biggest hurdle in fresher's way of career development, we are not willing to counsel, communicate or help our fresh lot. We are just to do our job and we will remain doing same.

Note:

I am still researching on this subject, as this subject is not limited but required lot of work and restructuring suggestions.

I am also afraid of the lack of acceptance of this issue from a society where we neglect the base of the problem, we all need to address the issue as per our limitation.



Engineer Making Differences

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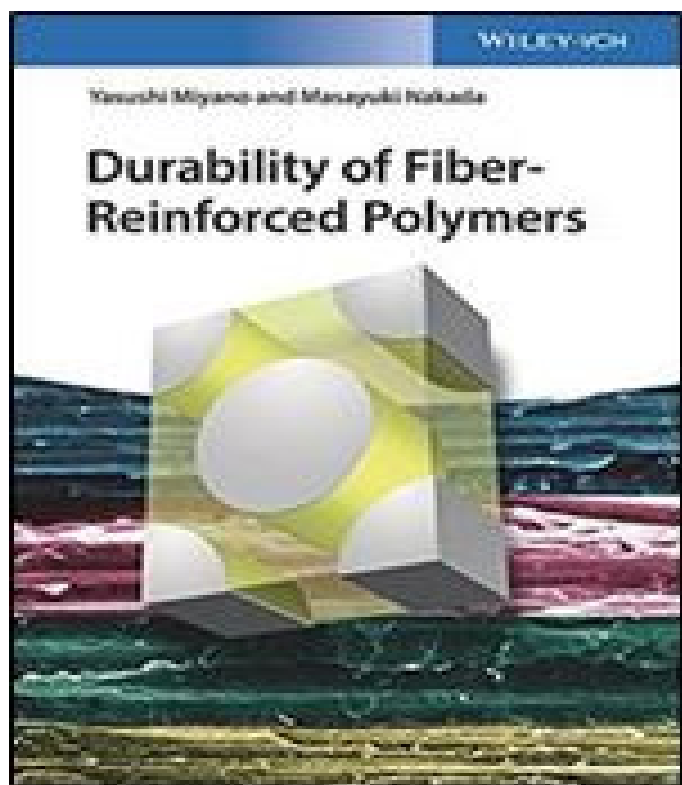


He has more than 16 years experience in Transmission -Distribution-Electrical Energy theft detection-Electrical Maintenance-Electrical Projects (Planning-Designing-Technical Review-coordination -Execution). He has published numbers of Technical Articles in “Electrical Mirror”, “Electrical India”, “Lighting India”, “Smart Energy”, “Industrial Electrix”(Australian Power Publications) Magazines. He wants to Share his experience & Knowledge and help technical enthusiasts to find suitable solutions and updating themselves on various Engineering Topics.



BOOK FOR THIS MONTH

The result of the authors' 40 years of experience in durability testing, this book describes the advanced testing methodology based on the viscoelasticity of matrix polymer. After a short introduction to the viscoelastic behavior of fiber-reinforced plastics, the text goes on



to review in detail the concepts of static, fatigue and creep strengths in polymer composites. An application-oriented approach is adopted such that the concepts developed in the book are applied to real-life examples.

Indispensable information for materials scientists and engineers working in those industrial sectors is concerned with the development and safe use of polymer composite-based products.



